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THE BOTANICAL AND OTHER PAPERS OF THE WILKES EXPLORING EXPEDITION.

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THE United States Exploring Expedition under the command of Charles Wilkes, U. S. N., started in 1838 and continued until 1842; the scientific results of the expedition were published in a series of volumes, the first in 1846, the last in 1874. In 1862 separates of the text and plates referring to the lower cryptogams are said to have been issued, with some plates representing phaenogams; the text for the former beginning with page 113; the text belonging to the latter, beginning with page 205, did not appear until 1874, when all were issued together as Vol. XVII, the title page bearing the double date 1862, 1874. In looking up the original descriptions of some species of algae published here, I found that the references to them by later authors were frequently erroneous, and I thought a note giving the correct references might be of use. While getting together the data for this I came upon some rather interesting facts in regard to other papers issued in the series, and my note has been gradually extended beyond the original plan. I will first give the results of my investigation as far as the algae are concerned, afterward and more concisely what I have found of interest as regards the rest of the series.

The work seems to be little known to writers on algae; it is not included in any of the bibliographies of De Toni, *Sylloge Algarum*, with the exception of a reference in Vol. I, p. IX, to the Diatomaceae, which occupy only 9 pages of the work; the reference is to Vol. VIII of the series, which is incorrect. In the very full synonymy and

lists of species inquirendae given by Bornet & Flahault¹ no reference is made to *Nostoc expansum*, described and figured in the Wilkes paper, p. 164, Pl. VI, figs. 1 & 2. Mme Weber-van Bosse,² however, cites the work, as do the Gepps,³ but as will be seen later, the citations in both these cases must be revised.

Page 153 is the subtitle for the algae, and reads "Algae. By Jacob Whitman Bailey and William Henry Harvey," but whenever in the following pages the two names are given as joint authors of a species, the order, except among the diatoms, is reversed, being Harvey and Bailey,⁴ which as will be seen later, is the correct form.

There is seldom anything to show whether a name appears here for the first time, either as a new species or as a new combination. A Latin diagnosis is sometimes given for a species attributed to some other author, without any citation; for instance *Gymnogongrus vermicularis* J. Ag.; on p. 164. Few synonyms are given, and in some instances they are printed exactly as independent species; for instance *Fucus vermicularis* Turn., on p. 164. Errors in spelling occur, like *Ectocarpus namulosus* for *E. hamulosus* on Plate VII. All these things tend to confuse the writer who wishes to cite from this work, but they are only the beginning of his troubles. One genus and four species, which have the appearance of being here published, had already been mentioned, with sufficient description, by Harvey; the genus *Chlorodesmis* in 1858,⁵ *Dasya plumosa*⁶ *Rhodymenia Wilkesii*,⁷ *Gigartina mollis*,⁸ *G. exasperata*.⁹ No reference is made in the Wilkes paper to any of these earlier publications, with the exception of *Rhodymenia Wilkesii*, where we have in the text, p. 162, "A very

¹ Bornet & Flahault, Revision des Nostocacées Heterocystées, Ann. Sci. Nat., Ser. 7, Bot., Vol. VII, p. 177, 1888.

² A. Weber-Van Bosse, Monographie des Caulerpes, Ann. Jard. Bot. Buitenzorg, Vol. XV, p. 243, 1898.

³ A. & E. S. Gepp, The Codiaceae of the Siboga Expedition; Siboga-Expeditie, Monogr. LXII, Leiden, 1911.

⁴ The order "Bailey and Harvey" on the title, while the following species are "Harvey and Bailey," seems mere carelessness, but a possible explanation was suggested to me by an advertisement of a Philadelphia publishing house of a second edition of the narrative, Vols. I-V of the government issue. "Everything about this work will be STRICTLY AMERICAN. . . ." It may have occurred to some one that it would not be STRICTLY AMERICAN to put the name of Prof. Harvey of Dublin before that of Prof. Bailey of West Point.

⁵ W. H. Harvey, Nereis Boreali-Americana, part 3, p. 29.

⁶ W. H. Harvey, l. c., part 2, p. 66, 1853.

⁷ W. H. Harvey, l. c., part 2, p. 147.

⁸ W. H. Harvey, l. c., part 2, p. 175.

⁹ W. H. Harvey, l. c., part 2, p. 177.

fine species, quite unlike any of the genus hitherto described." and a footnote, p. 161, "For the reasons given in the *Nereis Boreali-Americana*, 2, p. 147, the name of this species must be changed to *Rhodymenia pertusa*, J. Ag., Sp. Alg. 2, p. 376. W. H. H." *Chlorodesmis* is characterized as "Nov. Gen.," p. 172, but on p. 173 we find "[A second reputed species of this genus is described and figured in Harvey, Ner. Bor. Amer. 3, p. 30-40, but that may possibly be a *Derbesia*. W. H. H.]"

That these things should be published as new in 1862, with references to earlier descriptions in 1853 and 1858, is not the worst; the one genus and four species mentioned above, with another genus *Notheia*, and twelve other species in the Wilkes paper of 1862, were all properly published by Harvey and Bailey in 1851!¹ The species in question are, in addition to those already mentioned, *Notheia anomala*, *Nostoc expansum*, *Ectocarpus hamulosus*, *Chondrus uncialis*, *Gracilaria filiformis*, *Gymnogongrus* ? *dendroides*, *Gelidium unilaterale*, *Liagora hirta*, *Caulerpa falcifolia*, *C. Pickeringii*, *Dictyota bidentata* and *Chlorodesmis comosa*. The seventeenth species of the 1851 list is *Hypriea* (probably a misprint for *Hypnea*) *Coulteri*, which does not appear in the 1862 work. There is no mention whatever of this earlier paper in the later work, while in the *Nereis*, under *Rhodymenia pertusa* we find the synonym "*Rhodymenia Wilkesii* Bail. & Harv. in Bot. Expl. Exped. cum Icone, ined.," and under *Chlorodesmis* the remark "The genus *Chlorodesmis* was founded by the late lamented Professor Bailey and myself on an alga brought by Captain Wilkes from the Feejee Islands."

It is not difficult to understand why the Harvey and Bailey paper of 1851 has been forgotten. It is possible that a careful search would find authors who mention it, but the only instances in algological papers that have come to my notice are Setchell & Gardner,² and Tilden.³ But the unfortunate fate that has pursued the Wilkes algae from the start seems to have extended to both of these references; Setchell & Gardner include both the 1851 and the 1862 papers in their

¹ W. H. Harvey & J. W. Bailey, Description of seventeen new species of algae collected by the U. S. Exploring Expedition, Proc. Boston Soc. Nat. Hist., Vol. III, p. 371.

² W. A. Setchell & N. L. Gardner, Algae of Northwestern America, Univ. of California Publications, Bot., Vol. I, p. 165, 1903.

³ Josephine E. Tilden, A contribution to the bibliography of American algae, Minnesota Botanical Studies, Vol. I, No. XXIII, p. 295, 1895.

remarkably accurate list of works referred to, but the 1862 paper is said to be in Vol. XIII, not XVII, of the Wilkes Expedition reports. This is probably a misprint, but, as will be seen later, some of the memoirs of this series may be found in different copies with different title pages, and there may have been an error in the volume number in this case. Unfortunately, the question cannot now be settled, as the copy used was destroyed in the San Francisco fire.

Miss Tilden makes no reference to the 1862 paper, and omits Bailey as joint author of the 1851 paper, placing it under W. H. Harvey only; and the date is vaguely given as 1848-1851.

With our present recognition of the necessity of accuracy in matters of publication and citation, such baffling and misleading work would be little short of criminal. Even after making allowance for the looser treatment prevailing fifty years ago, it is difficult to understand it. The two genera in question have been subjects of considerable study and discussion, and the fact that a date of publication later than the true one has been assigned to them might have had serious results in nomenclature. De Toni's *Sylloge* is the index to which one naturally first refers when looking up matters of this kind. In Vol. I, p. 439, 1889, we find "*Chlorodesmis* Bail. et Harv. [1858] in Harv. Ner. bor. Am. III, p. 29." In Vol. III, p. 224, 1895, "*Notheia* Bail. et Harv. [1855] in Hook. Fl. of New Zeal. II, p. 215 et Botany of Wilke's Expedition (ined.)" These should now read Harvey & Bailey [1851] in Proc. Boston Soc. Nat. Hist., Vol. III, p. 371 & p. 373.

It may be of interest to note that specimens of many of the species, some of them evidently the individuals from which the plates were drawn, are in the herbarium of Brown University, Providence, Rhode Island, where Professor W. W. Bailey, son of J. W. Bailey, was for many years at the head of the department of botany.

When we look up the history of the whole work, the element of uncertainty and inconsistency that we found as to the paper on algae is still noticeable. The Act of Congress authorizing the work, under date of Aug. 26, 1846, provides for a series of volumes similar to those of the Voyage of the *Astrolabe*, to be issued in 100 copies, and distributed as follows:—one copy each to Captains Wilkes, Hudson and Ringgold, one to the Library of Congress, one to the Naval Lyceum at Brooklyn, one to each State of the Union, one to each friendly foreign power, and one additional copy each to France and Great Britain. The number of states increased during the period

from 1846 to 1874; whether the number of friendly foreign powers increased or decreased during this time, I have no idea; in any case the number available for general distribution must have been exceedingly small. In a communication from the Librarian of Congress, whose kindness in furnishing me important data in regard to the matter I gratefully acknowledge, is a statement which incidentally shows what might have been thus available, and at the same time shows that probably none were really available. A fire at Washington, April 11, 1856, destroyed about 21 copies of 18 of the volumes then in print, and of those destroyed only the narrative volumes and Vols. VI–VIII of the memoirs were replaced by a new impression. Probably none of the copies authorized by Congress ever reached the general public.

The General Catalogue of Government Publications by B. P. Poore, issued in 1885, at page 500 has a list of the volumes, but the fatality that seems to attach to the whole business extends to this also, and it is incorrect in at least one particular, so that I shall give instead the list made out for me by the Chief Bibliographer of the Library of Congress, adding the author's names, which were given in only a few instances in the list. Vols. I to V, with an atlas, contain the narrative of the expedition, were issued in 1844, and need not be here considered. They seem, however, to have attracted interest, and several editions, some in smaller and less expensive form, were issued soon after by publishing houses.

- VI. Philology, Horatio Hale, 1846.
- VII. Zoophytes, James D. Dana, 1846, with Atlas, 1849.
- VIII. Mammalogy and Ornithology, John Cassin, 1858, with Atlas of same date.
- IX. Races of Man and their Geographical Distribution, Charles Pickering, 1848.
- X. Geology, James D. Dana, 1849, with Atlas, undated.
- XI. Meteorology, Charles Wilkes, 1851.
- XII. Mollusca and Shells, Augustus A. Gould, 1852, with Atlas, 1856.
- XIII. Crustacea, Part 1, James D. Dana, 1852.
- XIV. Crustacea, Part 2, James D. Dana, 1853, with Atlas, 1855.
- XV. Botany, Part 1, Asa Gray, 1854, with Atlas, 1856.
- XVI. Botany, Cryptogamia, William D. Brackenridge, 1854, with Atlas, 1855.

XVII. Botany (author's name not on title), 1862-1874, with Atlas, no title page.

XVIII. Botany, never published.

XIX. Geographical Distribution of Animals and Plants, Charles Pickering. In signatures, Boston, 1854.

XX. Herpetology, Charles Girard, 1858, with Atlas, same date.

XXI & XXII, Ichthyology, never published.

XXIII. Hydrography, Charles Wilkes, 1861, with two Atlas volumes, both 1858.

XXIV. Physics, never published.

This is the list of what we may call the official set, the 100 copies authorized by Congress; the volumes are sumptuously bound in full morocco, with elaborate ornaments stamped in gilt, eagles, sunbursts etc. The Massachusetts set can be seen in the State Library in the State House in Boston; it has all the volumes issued with the exception of Vols. XVII & XIX. The printed catalogs of the State Libraries of Ohio and California show very nearly the same, and the Rhode Island set, deposited with the Rhode Island Historical Society, is similar. I have not looked up other state sets, but it may fairly be assumed that they are nearly the same.

Soon after the work was authorized by Congress, protests came in from scientific and other societies against the limitation of the edition, providing no copies whatever for institutions or the public.¹ These were referred to the Joint Committee on the Library of Congress, which reported² recommending 400 additional copies, 285 to be distributed to institutions in the country, the remainder to be sold to the public. Congress ordered 5000 copies of this report to be printed, and then paid no further attention to it. Somewhat grudgingly, authors were permitted to have additional copies printed at their own expense, and this was taken advantage of to a varying extent by different authors; copies so issued are what one finds in various public and scientific libraries. When not rebound, they are in the ordinary black cloth of government publications of the period. Of Vol. VI there appear to have been printed 150 such copies, the responsibility being taken by the firm of Lea & Blanchard of Philadelphia. I do not think that over 100 copies were printed in this way of any other volume, and of some the number was less; in one or two

¹ See Cong. Doc., Vol. 476, No. 327; Vol. 533, No. 57 etc.

² Cong. Doc., Vol. 477, No. 405.

instances I cannot find that any extra copies were printed at all. The volumes of the official edition had no publisher's name on the title page, but only "Printed by C. Sherman, Philadelphia" or a similar form. Some of the copies of the public edition are the same, but others have various imprints. In most but not in all cases, the reverse of the title has "Printed by C. Sherman" or some form similar. These volumes were generally placed by the authors in the hands of some publisher, whose name appears on the title; sometimes the work was transferred from one publisher to another, and another title used. Being sold individually, volume numbers were often omitted, which was not unnatural, but it is not so easy to understand why in some cases a different volume number from that of the official edition should be used.

I have drawn up a list of these variations from the official set, in the copies I have examined in the libraries of Boston and Cambridge; it is probable that copies in other places will show additional variations. For the convenience of any one who may wish to inspect any particular form, I use initials to indicate the library, as follows:—BPL, Boston Public Library. NH, Boston Society of Natural History. BA, Boston Athenaeum. GH, Gray Herbarium. MHS, Massachusetts Horticultural Society. MCZ, Museum of Comparative Zoology.

Vol. VI. No volume number on title or back; BA, BPL. No volume number on title, Vol. VII on back; BPL, Barton Library.

Vol. VII. No volume number on title, Vol. VIII on back, Philadelphia, Lea & Blanchard, 1848; BPL, NH. The BPL copy has a slip bound in before the false title, dated December, 1847, and announcing the atlas, to be ready in the course of 1848.

Atlas to Vol. VII. Philadelphia, C. Sherman, Printer, 1849; BPL. Philadelphia, Lea & Blanchard, 1846; MCZ. Philadelphia, Lea & Blanchard, 1849; NH, BPL, Barton Library.

Vol. VIII. Philadelphia, J. B. Lippincott & Co., 1858, no volume number on title or back; NH. Two title pages, J. B. Lippincott & Co. on first, Vol. VIII; second title with no volume number, 1858, no volume number on back; BPL, MCZ.

Atlas to Vol. VIII. Philadelphia, J. B. Lippincott & Co., 1858; NH, BA, BPL, MCZ.

Vol. IX. Boston, Charles C. Little and James Brown, 1848; NH. Boston, Charles C. Little & James Brown. London, John Murray; 50 Albemarle St., 1858; BPL, two copies.

Vol. X. No date on title, no volume number on title or back, New York, G. P. Putnam; BA. No date on title, no volume number on title or back, New York, G. P. Putnam, 155 Broadway; London, Putnam's American Agency, 49 Bow Lane, Cheapside; MCZ.

Atlas to Vol. X. No date or volume number. New York, G. P. Putnam; BA. No date or volume number, New York, G. P. Putnam, 155 Broadway; London, Putnam's American Agency, 49 Bow Lane, Cheapside; BPL.

Vol. XI. Introduction, pp. (V)–LVIII, 25 diagrams. A printed slip is bound in at the title, signed "The author," stating that a few copies were printed for his friends; MCZ. I cannot find that the text of this volume was issued in other than the official set.

Vol. XII. Boston, Gould & Lincoln, 1852; BA, BPL. Boston, Gould & Lincoln, 1852, with 10 pages (*500–*509) "Addenda et Corrigenda" with date of May 20, 1854, bound in after the index, which ends with p. 510; original binding; N.H. The Massachusetts official copy and the Barton copy in BPL are like the BA copy, and have the additional 10 pages as a separate pamphlet.

Vol. XIII. Vol. XIII, part 1 on back, BPL, MCZ.

Vol. XIV. Title Vol. XIII, part 2, 1852; NH. Title and back, Vol. XIII, part 2, 1852; BPL, MCZ.

Atlas to Vols. XIII & XIV. NH, MCZ, BPL 2 copies, all like official.

Vol. XV. No volume number, New York, G. P. Putnam & Co.; BA, NH. No volume number, Philadelphia, printed by C. Sherman; GH. Vol. 14 on back, New York, G. P. Putnam & Co.; BPL.

Atlas to Vol. XV. No volume number, New York, G. P. Putnam & Co., Publishers, 1857; NH, GH, BPL, 2 copies.

Vol. XVI and Atlas. GH, BPL, like official.

Vol. XX. No volume number on title or back, Philadelphia, J. B. Lippincott & Co.; NH, BPL. The official copy has on the title "Prepared under the superintendence of S. F. Baird" which does not appear on the NH and BPL copies.

Atlas to Vol. XX. Philadelphia, J. B. Lippincott & Co.; NH, BA, BPL.

Of Vol. XXII and its two atlas volumes I have seen only the official copy.

The government catalog gives Vol. VIII by Cassin, but there was

an earlier Vol. VIII by Titian R. Peale. The official set has this as Vol. VIII, part 1, the Cassin volume being part 2. Peale was with the expedition in charge of the department of Birds and Mammals, and on his return prepared the plates and wrote the volumes of text. This was printed and distributed to the states and presumably to the foreign powers. Wilkes, who had taken on the superintendence of the publications, was dissatisfied with Peale's work, and arranged with Cassin to prepare a new volume in place of it. The copies which had been distributed were not recalled, but all remaining copies appear to have been destroyed, including the copy of the Library of Congress, which lacks this volume. I cannot find that any author's copies were printed, and it must be considered one of the rarest of scientific works. Some good ornithologists, to whom I wrote inquiring about it, had never heard of it. Two ornithologists, both of high authority, knew it; one writes me that the 100 or more new species described in it were properly reduced by Cassin to about 30; the other writes me that Cassin severely condemned Peale's descriptions, but modern ornithologists consider Cassin's descriptions little better.

The rarest of the botanical works is probably the Atlas to Vol. XVII, Ferns etc. by Brackenridge, but the reason for this rarity I do not know. Vol. XV, Phanerogamia, is sometimes found without the Atlas, and vice versa. Sabin,¹ states that by some mistake a large part of the edition of the plates was sold at auction, unbound, without the text. I can find no details as to this, but one copy of the Atlas in the Boston Public Library was presented by Leonard & Co., January 5, 1858. Leonard & Co. were leading book auctioneers in Boston for many years, and may have made the sale referred to.

To explain the non-publication of Vols. XVIII, XXI, XXII and XXIV would take much space and would bring up interesting but not specially edifying stories of inefficiency, extravagance and plunder, which when compared with present conditions, indicate that the standards in such matters are higher now than in the days of the fathers.² At the time the publication was authorized there was no National Museum, no Smithsonian Institution, practically no organ that could deal with scientific matters; Congress, probably with a vague feeling that literature had something to do with science, and

¹ Books relating to America, Vol. VII, p. 395.

² Details of dissensions following the expedition, and reports on manner of publishing will be found in Cong. Doc., Vol. 494, No. 47, Vol. 495, No. 217, Vol. 994, No. 391 and Vol. 1667, No. 60.

that a library had something to do with literature, put the matter in charge of the Joint Committee on the Library of Congress, with which it remained from 1852 to 1874, the date of the last issue. The committee, its membership continually changing, left the whole matter practically in the charge of Wilkes, who dealt with authors and printers much as he was accustomed to do with sailors and marines. The qualities that made him an excellent commander of an exploring expedition, accomplishing a work of lasting credit to the navy and the nation¹ were not suited to estimating the value of scientific memoirs. We have already seen how Peale's memoir was treated by him. William Rich, the botanist of the expedition,² prepared a volume on botany, which was never printed; Louis Agassiz two volumes on ichthyology, Gray a second volume on botany; the manuscripts of these are probably somewhere in Washington; but of course the long time since they were written would make their publication out of the question now. The Library of Congress claims to have a volume, without title, of the plates prepared for Agassiz's memoir. If printed at all, no doubt the 100 copies were printed, but the Museum of Comparative Zoology, Agassiz's own Museum, knows nothing of them.³

There is no evidence of anything dishonest on the part of Wilkes himself but the report of the Library Committee in 1876⁴ shows that the greater part of the money appropriated, about \$350,000.00 in all, had gone for "superintendents," the amounts for the work itself being in some years absurdly small. The disgust of Congress at these

¹ Dana, who had plenty of reasons to be dissatisfied with him as regards the publication, calls him "An excellent officer"; "Perhaps no better could have been found in the navy at that time." For a very good account of the voyage from a scientist's point of view, as well as of the curiously annoying restrictions Wilkes attempted to impose on the authors of the memoirs, see *The Life of James Dwight Dana, Scientific Explorer, Mineralogist, Geologist, Zoologist, Professor in Yale University*, by Daniel C. Gilman, President of Johns Hopkins University. New York & London, Harper & Bros., 1899. An indication of the change of conditions in the past 60 years is shown by Dana's comment on the one particular restriction that seems to have made him lose his temper, the ruling that the work should be done at Washington. "The absurdity of writing a scientific memoir in a city without books!"

² The botanist of the expedition was to have been Dr. Gray, who was regularly appointed and drew advance pay. For some reason he decided not to go. Interesting letters in regard to this are included in the volume of letters by Jane Loring Gray, Boston, 1893.

³ The payments to the authors were liberal; according to the report of the Library Committee, Cong. Doc., Vol. 994, No. 391, such payments on the rejected or neglected volumes were Rich, \$4,560.00; Gray, \$3,000.00; Agassiz, \$5,916.66.

⁴ Cong. Doc., Vol. 1667, No. 60.

revelations led to an immediate stoppage of the work, without regard to the memoirs ready and waiting. The money sufficient to publish them had been appropriated over and over again but had been squandered.

My interest in the matter began with some references to Vol. XVII, and this volume deserves still further notice. Its fate was in some ways the most peculiar of all. This volume was intended to include the cellular cryptogams, as well as the phanerogams of the Pacific coast of the United States, the latter part having been assigned to Dr. John Torrey. His report was ready in 1861, but had not been published at the time of his death. Dr. Asa Gray added some notes, and in a short preface dated Washington, April 15, 1873, explained his relation to Dr. Torrey's work, and to some extent the circumstances of the twelve years delay since it was written. The lichens by Tuckerman, pp. 113-152, Algae by Bailey & Harvey, pp. 153-191, Fungi by M. A. Curtis & M. J. Berkeley, pp. 193-203, and the Torrey-Gray section, pp. 305-514, were issued in 1874, the title page bearing the double date 1862-1874. A note states that pp. 113-203 with the plates belonging to them and also the 17 plates of the Torrey-Gray section, were printed in 1862, and a small number of copies distributed. I have never seen one of these copies, nor has any of my botanical friends, and I have not found them mentioned in any catalog. Pp. 1-112 were assigned to the Musci, by W. S. Sullivant, but he apparently became tired of waiting for their publication by the government, and in 1859 issued an imperial folio atlas of 26 plates with 32 pages of text, corresponding to the missing pp. 1-112 of Vol. XVII. There is a copy of this at the Gray Herbarium. All the copies I have seen of Vol. XVII appear to be of the public or author's edition, the Gray Herbarium had the supply of these and of the Sullivant folio, but I believe they are now all sold. Some copies have the plates in a separate atlas volume, the same as the plates of the other memoirs in the series; more commonly the plates are folded, mounted on guards and bound with the text. No complete copy of the volume, with pp. 1-514, has been seen by me, but Dr. H. H. Bartlett was so kind as to look up at my request the copy in the Library of Congress; he reports it as complete, with a title page dated 1874, giving full statement of the contents; it has the full morocco binding of the official set. It is evident then that the whole volume was officially printed, but it was never distributed to the states, nor presumably

to the foreign powers. It is to be hoped that some one with influence enough to overcome the official inertia will have the missing ninety and nine brought forth from their hiding, and sent to their destinations.

As to Vol. XIX, the other one missing in the Massachusetts set, all the copies I have seen are of the public issue, and bear different publishers names, though all printed by C. Sherman. It is not likely that Sherman printed copies for the author but not for the government; probably the 100 copies of this volume might be unearthed in Washington by one who had time and energy for the work.¹

The insufficient supply of these memoirs has been reduced below the original amount by fires, the loss in this way having been unusually heavy. I have already referred to the fire at Washington. There were losses in two fires at Philadelphia near that time, so that the official edition of most of the memoirs was reduced to about 70. Dana's volume on zoophytes was an exceptional sufferer; the original colored drawings were lost in one of the Philadelphia fires; most of the type specimens in the Chicago fire; and at two times, a fire at New Haven destroyed some of his own extra copies, the second fire taking all that was left. In ascertaining whether any other states had sets like that of Massachusetts, I have written to the State Librarians of Rhode Island, New York and Minnesota; of these the last two report that they had sets, but that they had been destroyed in conflagrations. It is not likely that the proportion is the same among the other states; but one cannot tell what a thorough round-up might show.

MALDEN, MASSACHUSETTS.

¹ In this connection see Cong. Doc. Vol. 994, No. 391, Report of the Committee on the Library on progress of publication. Under date of March 2, 1859, they say of Vol. XIX, ms. ready; maps made. The Boston Public Library copy has the signature of Theodore Parker with the date March 2, 1854. Other copies have title pages with dates varying from 1854 to 1863.